

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

REMARKS

1. Amendment of Claims: The Examiner objected to the following informalities: In Claim 1, lines 5 and 8, Claim 2, line 2, Claim 3, lines 5 and 7, the term "means" should be deleted. In response, the term "means" is hereby deleted from Claims 1, 2 and 3.

a. **Rejection of Claims 1-4 under 35 U.S.C. 102(b) as being anticipated by Smith et. al.**

Claims 1-4 were rejected under 35 U.S.C 102(b) as being anticipated by Smith et al. ('939). According to the Examiner, Smith et al. discloses: a body supporting, serial inflating seat comprising at least three transversely aligned, inflatable air bladders, an air pump connected to each air bladder, a valve connected to each air bladder, a timer connected to the pump to sequentially inflate the air bladders from front to back, and connected to the valve to sequentially deflate the air bladders after a pre-determined time period, a transversely aligned, rear cushion disposed adjacent to the rear-most air bladder, and a control switch to constantly inflate, constantly deflate, or sequentially inflate and deflate the air bladders.

The Applicant hereby transgresses this rejection on the grounds that the Smith et al. invention does not disclose all of the claim limitations recited in Claim 1.

MPEP §2131 provides:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631 2 USPQ 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

1 “Contrary to the Examiner’s statement, Smith et al. does not disclose a serial inflating
2 seat with three transversely aligned air bladders, a valve and a timer used to sequentially
3 inflate the air bladders from front to back, nor a transversely aligned rear cushion that
4 supports the user’s ischial tuberosities when sitting. Instead, it discloses an “alternating
5 pressure pad car seat that includes a plurality of column-shaped cushion cells 21, 22 located
6 in a base 10. The cells 21, 22 are divided into two groups and connected to an alternating
7 pressure differentiated means 40 to inflate and deflate in an alternating manner to alternate
8 the pressure joints on which the occupant is supported within the seat (see Col. 1, lines 53 –
9 56). As shown in Figs. 2 – 4, during operation, the two groups of cells 21, 22 are alternately
10 inflated and deflated to prevent the occupant from rising and falling when sitting on the seat.
11 The cells are not individually transversely aligned on the seat and are not sequentially
12 inflated from front to back.

13 In addition, the rear portion of element 17 on the rear portion of element 60 are not
14 sufficient in size to support the occupant’s ischial tuberosities when sitting.

15 **b. Claims 1 and 2 were rejected under 103(a) as being obvious based on**
16 **Castagna (‘223) in view of Armstrong (‘817)**

17 According to the Examiner, Castagna (‘223) teaches the Applicant’s device except for
18 a timer. The Examiner also stated that Armstrong (‘817) teaches a body supporting device
19 including a plurality of transversely aligned, inflatable air bladders, an air pump, a valve
20 connected to the air bladders, and a timer connected to the pump and valve. Therefore, it is
21 obvious to add the timer from Armstrong (‘817) to Castagna (‘223) to provide an alternative
22 conventional means for ensuring sequential inflation and deflation of the seat as desired.

1 The Applicant hereby traverses this rejection on the grounds that the Examiner has
2 not presented a Prima Facie case for obviousness. MPEP Section 2142 recites:

3 “The legal concept of prima facie obviousness is a procedural tool of examination
4 which applies broadly to all arts. It allocates who has the burden of going forward with
5 production of evidence in each step of the examination process... The examiner bears the
6 initial burden of factually supporting any prima facie conclusion of obviousness. If the
7 examiner does not produce a prima facie case, the applicant is under no obligation to submit
8 evidence of nonobviousness... The initial evaluation of *prima facie* obviousness thus relieves
9 both the examiner and applicant from evaluating evidence beyond the prior art and the
10 evidence in the specification as filed until the art has been shown to suggest
11 the claimed invention.”

12 1. The Examiner has not Considered all of the Claim Limitations

13 When evaluating a claim for determining obviousness, all limitations of the claim
14 must be evaluated (except in the factual contexts of *In re Dillon*, 919 F.2d 688, 16 USPQ2d
15 1897 (Fed. Cir. 1990) and *In re Wright*, 848 F.2d 1216, 6 USPQ2d 1959 (Fed. Cir. 1988),
16 which was overruled *en banc* by the Federal circuit in *Dillon*.) Thus, 35 USC §103 provides
17 that: “A patent may not be obtained...if the differences between the subject matter sought to
18 be patented and the prior art are such that the subject matter *as a whole* would have been
19 obvious at the time the invention was made to a person having ordinary skill in the art to
20 which the subject matter pertains...(Emphasis supplied).”

21 The Federal Circuit held that a reference did not render the claimed combination
22 prima facie obvious in *In re Fine*, 873 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), because
23 *inter alia*, the examiner ignored a material, claimed, temperature limitation which was absent

1 from the reference. In variant form, the Federal Circuit held in *In re Evanega*, 829 F.2d
2 1110, 4 USPQ2d 1249 (Fed. Cir. 1987), that there was want of *prima facie* obviousness in
3 that: "The mere absence [from the reference] of an explicit requirement [of the claim] cannot
4 reasonably be construed as an affirmative statement that [the requirement is in the
5 reference]."

6 The Applicant submits that neither Castagna nor Armstrong disclose a seat, pad, or
7 mattress in which the cells are transversely aligned and sequentially inflated and deflated
8 from front to back.

9 2. Prior Art Does Not Teach the Problem or Its Source

10 In many cases, the solution to a problem, once known, may be obvious but the
11 recognition of the problem itself or of the source of the problem is not obvious. Thus, the
12 historic case of *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 US 45 (1923),
13 established the rule that the discovery of the source of a problem may result in a patentable
14 invention despite the fact that the solution would have been obvious once the source of the
15 problem was discovered. In that case, Eibel discovered that the defective paper was
16 produced at high speeds in prior art machines because the speed of the in-flowing paper pulp
17 was much less than the speed of the paper-making wire mesh upon which the pulp was
18 deposited, in the direction of movement of the wire mesh. This problem was solved by Eibel
19 by increasing the angle of the paper-making wire mesh conveyor so that gravity imparted a
20 component of speed to the paper pulp in the direction of movement of the wire mesh. Thus,
21 in essence the pulp was moving with the wire mesh when it reached the wire mesh as
22 opposed to being moved by the wire mesh. In the past, the angle of the paper-making wire
23 mesh with respect to the horizontal had been changed for other purposes without recognizing

1 that a higher speed could be used. Furthermore, Eibel adjusted the angle to a much greater
2 extent than previously had been done.

3 Thus, when the examiner applies prior art to from the basis of a rejection under §103,
4 the practitioner must evaluate what is the patentable discovery made by the applicant, *i.e.*, the
5 discovery of the problem, the source of the problem or the solution to that problem. If the
6 prior art teaches that the solution to the problem is obvious, one must then determine whether
7 the discovery of the problem is taught or suggested by the prior art. If not, this will form the
8 basis for traversing the assertion of prima facie obviousness.

9 The Applicant submits there is no evidence of record that a person of ordinary skill in
10 the art at the time of Applicant's invention would have recognized that venous blood flow in
11 an occupant's legs when sitting is a cause of leg soreness or discomfort and that a seat with
12 sequentially inflating and deflating, transversely aligned bladders to force blood upward in
13 the legs solves this problem. Since there is no evidence that a problem was known in the
14 prior art and knowledge of a problem is the only reason or motivation for workers in the art
15 to apply their skill to its solution, Applicant's invention should be considered non-obvious.
16 (*In re Nomiya*, 509 F2d 566, 572, 184 USPQ 607, 612 (CCPA 1975).

17 There is also no evidence of record that a person of ordinary skill in the art would
18 have recognized that a person's ischial tuberosities must be supported to prevent movement
19 of the occupant on the seat when the air bladders are sequentially inflated and deflated.

20 For all of the above reasons, Applicant's invention should be considered patentable
21 and Notice of Allowance should be issued.
22
23

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

Respectfully submitted,



DEAN A. CRAINE

Reg. No. 33,591



VERSION WITH MARKINGS

TO SHOW CHANGES

MADE TO CLAIMS

FOR FIRST OFFICE ACTION

AMENDMENT

RECEIVED
APR 08 2003
GROUP 3600

CLAIMS

I claim:

1. (Twice Amended) A body supporting, serial inflating seat, comprising:

- a. at least three transversely aligned, inflatable air bladders;
- b. an air pump connected to each said air bladder to selectively inflate said air bladders;
- c. a valve ~~means~~ connected to each said air bladder to control the flow of air into and out of each said air bladder;
- d. a timer connected to said pump to sequentially inflate said air bladders from front to back, and connected to said valve ~~means~~ to sequentially deflate said air bladders after a pre-selected time period; and,
- e. a transversely aligned, rear cushion disposed adjacent to the rear-most said air bladder for continuously supporting the ischial tuberosities of the user when sitting.

2 (Twice Amended) The body supporting, serial inflating seat, as recited in Claim 1, further including a control switch connected to said valve ~~means~~ that enables one of said air bladders to be constantly inflated, constantly deflated, or sequentially inflated and deflated.

3. (Once Amended) The body supporting, serial inflating seat, comprising:

- a. two sets of three transversely aligned, inflatable air bladders;
- b. an air pump connected to each set of said air bladder to selectively inflate said air bladders;

1 c. a valve ~~means~~ connected to each said air bladder to control the flow of air into
2 and out of each said air bladder;

3 d. a timer connected to said pumps and said valve ~~means~~ to sequentially inflate
4 and deflate said air bladders after a pre-selected time period; and,

5 e. a transversely aligned, rear cushion disposed adjacent to the rear-most said air
6 bladder for continuously supporting the ischial tuberosities of the user when sitting.

7
8 4. The body supporting, serial inflating seat, as recited in Claim 3, further including a
9 control switch connected to said valve that enables said air bladders in one set of said air
10 bladders to be constantly inflated, constantly deflated, or sequentially inflated and deflated.

11
12
13
14
15
16
17
18
19
20
21
22